

REMARKS

The Office Action dated September 14, 2007 addresses claims 1-20. Claims 1-11 and claims 13-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Fischell et al. (US 6,360,122 B1, "the Fischell patent"), and claim 12 was indicated as containing allowable subject matter.

Applicants respectfully traverse the rejection of claims 1-11 and claims 13-20. However, to expedite prosecution, and not because applicants acquiesce to the Examiner's reasoning, applicants have cancelled claims 5, 9, 10 and 11. Claim 1 has been amended to incorporate the subject matter of cancelled claim 5, and claims 3 and 4 have been amended to incorporate the subject matter of cancelled claim 9. Applicants reserve the right to pursue the cancelled subject matter in a related application.

Rejection under 35 U.S.C. § 102(b)

The Examiner asserts that the Fischell patent teaches each and every element of the claimed invention. Applicants respectfully disagree with the Examiner on this point for at least the following reasons.

Fischell's implantable device is a closed-loop system for the treatment of certain neurological disorders, wherein the device comprises of an event processing substation, in addition to A/D converters and a digital signal processor. The processing steps of Fischell's device include identification of a neurological event, and stimulation of a patient in response to the identified event. The processed data is stored in a memory substation from where it is then transmitted

wirelessly to external equipment. In the current claimed invention, the output data stream representative of the received analog bioelectric signal is neither processed for event identification in the implanted system, nor is the data stored in a memory in the implanted device. The output data stream is simply transmitted wirelessly in real-time to a remote processor, where the data is filtered and processed as required for extracting information from the signal. Processing is preferably performed in the external processor to maintain power consumption of the implantable device at a reduced level which can be adequately supplied via the wireless link.

Applicants have further amended claim 1 to claim the invention more clearly. The claimed invention comprises a 1-bit Σ - Δ analog-to-digital converter, which converts the received analog bioelectric signal into a 1-bit data stream for wireless transmission to the remote processor. Fischell's device does not include a Σ - Δ modulator in any form.

Another point of distinction between the claimed invention and the applied reference is that in the Fischell patent, the sensing electrode continuously monitors the subject's brain waves, and is not triggered by the external equipment. In the claimed invention, on the other hand, the process of bio-signal reception and transmission is triggered by the external processor via control of the flow of electric current to the external coil.

It is respectfully submitted that claim 1 in its present form is allowable, without admitting to the propriety of the outstanding rejection. The amendments to claims 1 et seq. are fully supported by the original claims and specification as

filed. Accordingly, no new matter is added by this amendment. Claims 2-8 depend from claim 1, and hence, allowable for at least the same reasons as claim 1.

Applicants have made minor changes to the language previously appearing in claim 13 to more clearly claim the invention. No new subject matter is added by this amendment. Claims 14-20 depend from claim 13, and hence, are allowable for at least the same reasons as claim 13.

Claim 12, which was previously allowed, is amended only to correct an obvious typographical error.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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